



# **Introduction to its 60GHz Wireless Video Technology for Entertainment**

SiBEAM, Inc. - Arnold Brown, VP Corp.  
Development

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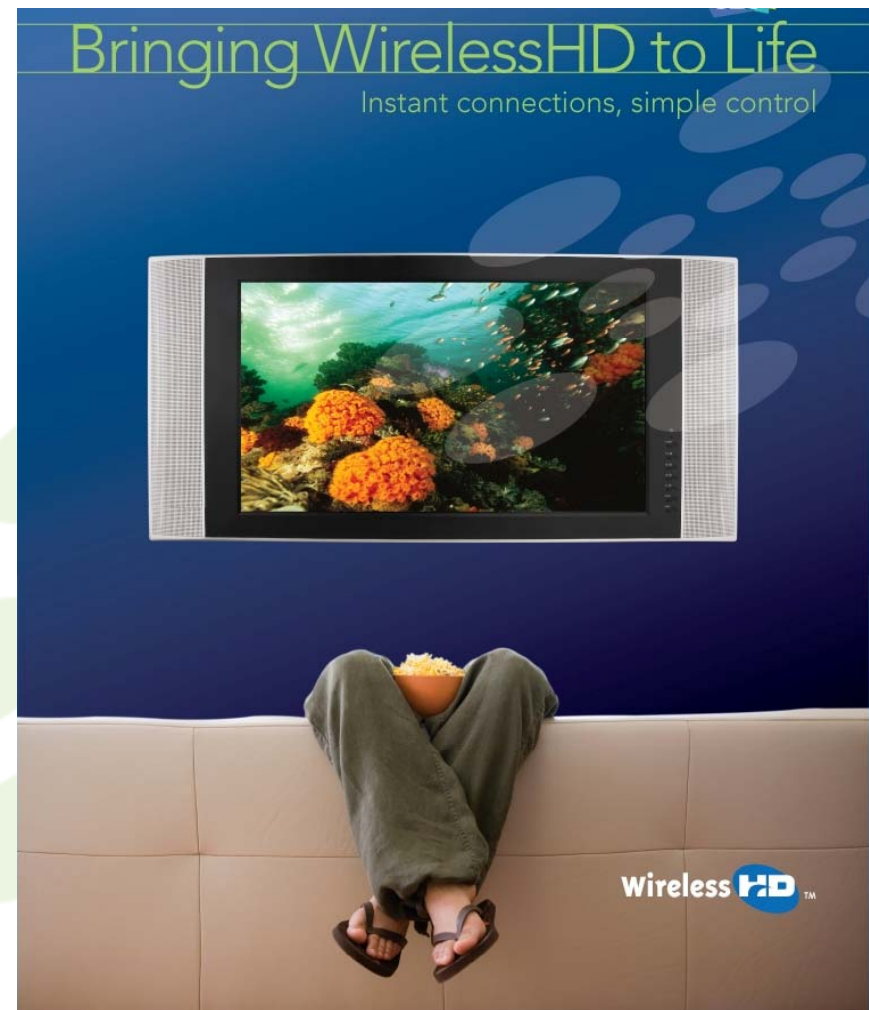
# SiBEAM Introduction

SiBEAM is a pioneer in advanced wireless semiconductor solutions. SiBEAM has developed technology for WirelessHD™ transmission of 1080P Video Content – transmitting every bit, every frame and every color.

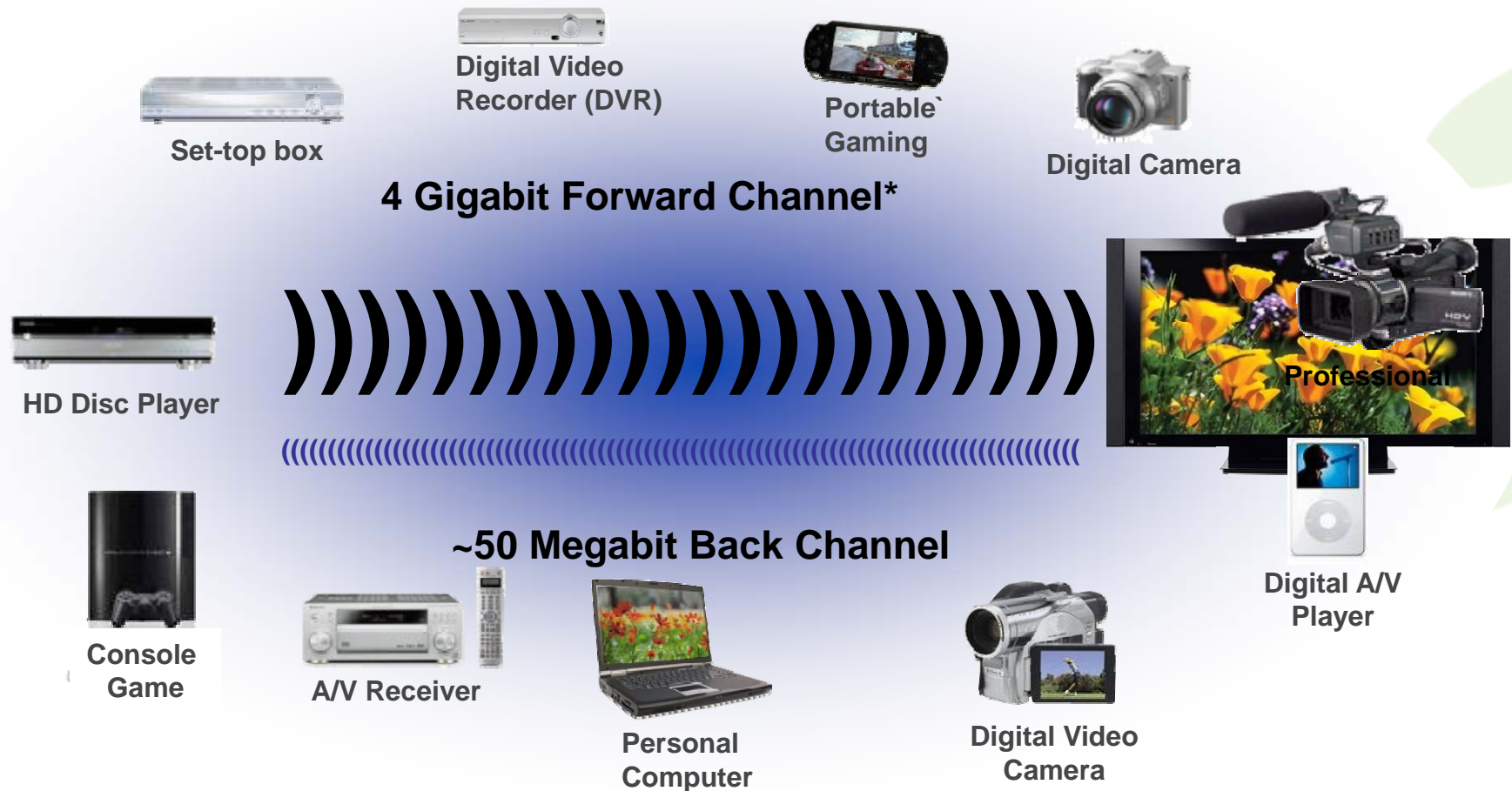


## SiBEAM's secure high quality A/V technology

- SiBEAM's OmniLink60™ technology designed to be compliant with WirelessHD 1.0 specification:
  - Uncompressed HD video, audio and data transmission, scalable to future high-definition A/V formats
  - Smart antenna technology for a non line of sight (NLOS) reliable, high-quality consumer experience
  - Device control for simple operation of consumer electronics products (AVC)
  - Up to 4 Gbps data rates at 10 meters in-room
  - AES encryption
  - Based on an open industry standard
  - Bit Error Rates similar to wired (HDMI) solutions
- Founding member of WirelessHD Consortium



# Media Device Connectivity

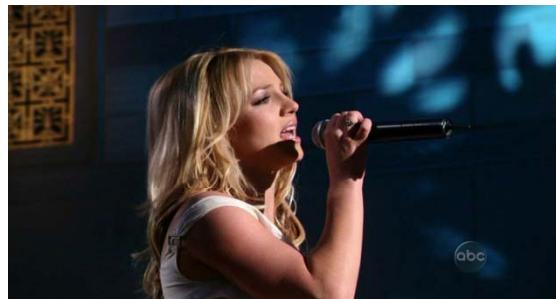


\* Future innovation is expected to increase bandwidth of forward channel

# SiBEAM's WiHD™ Compliant Technology

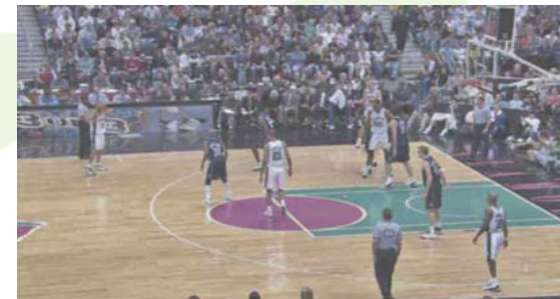
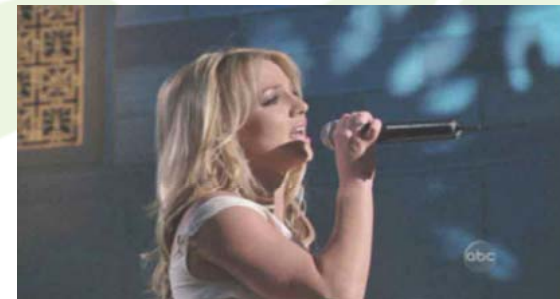
Delivers Full HD without visual distortions from lossy or compressed techniques

WiHD



VS

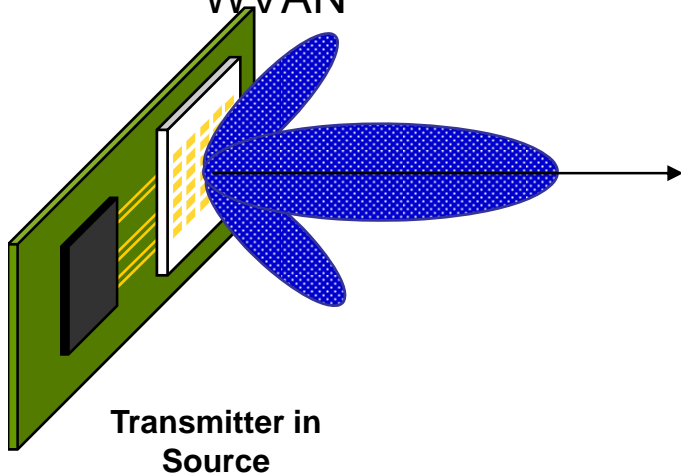
Pixels,  
Chroma,  
Luma,  
High  
Frequency



Lossy but Uncompressed Wireless

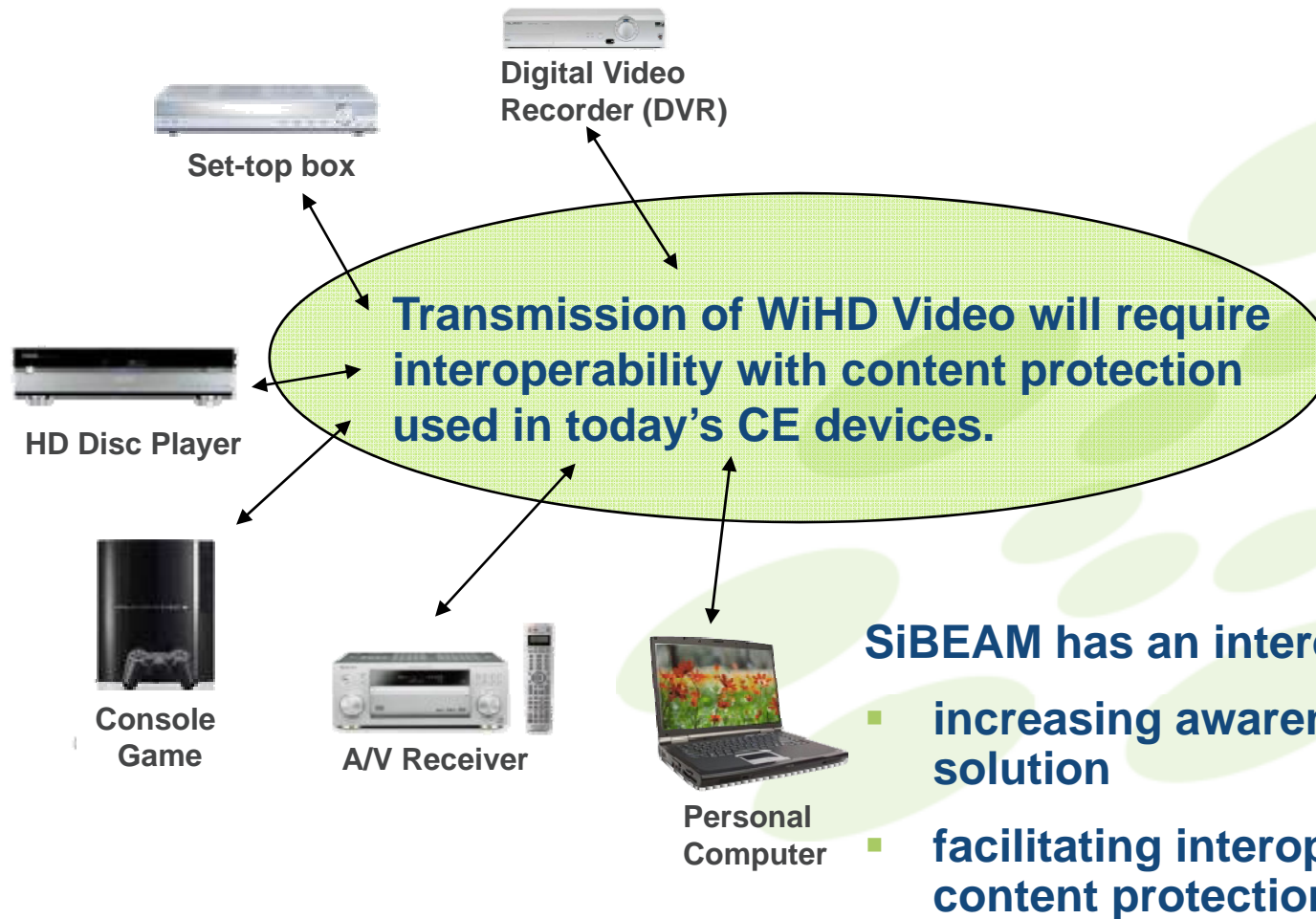
# OmniLink60™

- Wireless Video Area Network (WVAN) Operation:
  - Coordinator auto-discovers devices in the WVAN
  - Device capabilities exchanged
  - Continuous monitoring of WVAN and stations within or joining/leaving WVAN



# Why are we here at CPTWG?

The need to interoperate with content protection regimes



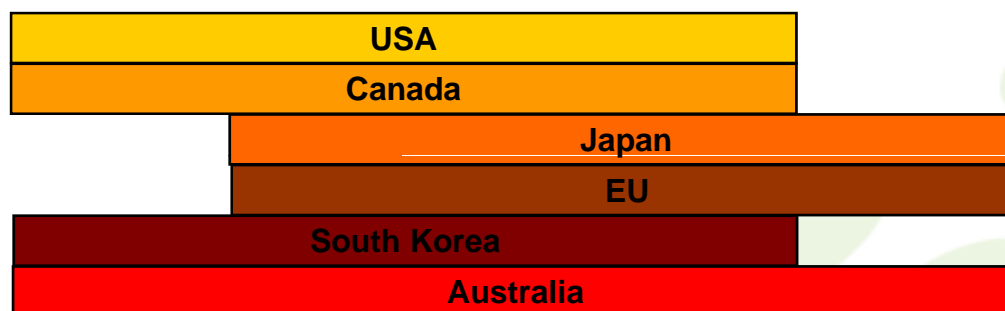
# Content Protection for SiBEAM's OmniLink60™ Technology

- Guiding principles:
  - When streaming content, use highest-quality, uncompressed HD content
  - Utilize established content protection techniques
  - Employ strong encryption (eg. AES)
  - Apply proximity controls



# 60 GHz Regulatory Profile

56 GHz	57 GHz	58 GHz	59 GHz	60 GHz	61 GHz	62 GHz	63 GHz	64 GHz	65 GHz	66 GHz	67 GHz
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- Technology uses a large (roughly 5 GHz) shared range of unlicensed spectrum around 60GHz frequency range – throughout major territories
  - Large bandwidth → high data rate (4 GB)
  - High transmit power → greater range
  - High directivity → lower interference, longer range

# WIRELESSHD CONSORTIUM

*In early 2005, seven market leaders and industry experts formed a special interest group called WirelessHD to develop an interoperable wireless specification for wireless multimedia transmission.*

*In 2007, the number of Promoters expanded to support the interests of the PC industry through a worldwide standards leader.*

*In January 2008 WirelessHD 1.0 is made available to Adopters.*



**Panasonic**

**NEC**



**SONY**

**TOSHIBA**

# Questions

James Gilb, Director of Advanced Technologies

